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Advancing Early Childhood Development: from Science to Scale

*An Executive Summary for *The Lancet's* Series*



“Young children’s healthy development depends on nurturing care—care which ensures health, nutrition, responsive caregiving, safety and security, and early learning.”

Overview of the Series

The 2016 *Lancet* Early Childhood Development Series highlights early childhood development at a time when it has been universally endorsed in the 2030 Sustainable Development Goals.¹⁻¹¹ This Series considers new scientific evidence for interventions, building on the findings and recommendations of previous *Lancet* Series on child development (2007, 2011), and proposes

pathways for implementation of early childhood development at scale. The Series emphasises “nurturing care”, especially of children below three years of age, and multi-sectoral interventions starting with health which can have wide reach to families and young children through health and nutrition.

Key messages from the Series

- **The burden and cost of inaction is high.** A staggering 43 percent of children under five years of age—an estimated 250 million—living in low- and middle-income countries are at risk of suboptimal development due to poverty and stunting.^{1,11} The burden is currently underestimated because risks to health and wellbeing go beyond these two factors. A poor start in life can lead to poor health, nutrition, and inadequate learning, resulting in low adult earnings as well as social tensions. Negative consequences impact not only present but also future generations. Because of this poor start, affected individuals are estimated to suffer a loss of about a quarter of average adult income per year while countries may forfeit up to twice their current GDP expenditures on health and education.
- **Young children need nurturing care from the start.** Development begins at conception. Scientific evidence indicates that early childhood is not only a period of special sensitivity to risk factors, but also a critical time when the benefits of early interventions are amplified and the negative effects of risk can be reduced. The most formative experiences of young children come from nurturing care received from parents, other family members, caregivers, and community-based services. *Nurturing Care* is characterised by a stable environment that promotes children’s health and nutrition, protects children from threats, and gives them opportunities for early learning, through affectionate interactions and relationships. Benefits of such care are life-long, and include improved health, wellbeing, and ability to learn and earn. Families need support to provide nurturing care for young children, including material and financial resources, national policies such as paid parental leave, and provision of population-based services in a range of sectors, including health, nutrition, education, and child and social protection.
- **We must deliver multi-sector interventions, with health as a starting point for reaching the youngest children.** Interventions—including support for families to provide nurturing care and solving difficulties when they occur—target multiple risks to development, and can be integrated into existing maternal and child health services. Services should be two-pronged, considering the needs of the child as well as the primary caregiver, and include both care for child development as well as maternal and family health and wellbeing. This affordable approach is an important entry point for multi-sectoral collaborations that support families and reach very young children. Essential among these are nutrition, to support growth and health; child protection, for violence prevention and family support; social protection, for family financial stability and capacity to access services; and education, for quality early learning opportunities.
- **We must strengthen government leadership to scale up what works.** It is possible to scale up projects to nationwide programmes that are effective and sustainable, as indicated by four country case studies in diverse world regions. However, government leadership and political prioritisation are prerequisites. Governments may choose different pathways for achieving early childhood development goals and targets, from introducing transformative government-wide initiatives to progressively enhancing existing services. Services and interventions to support early childhood development are essential to ensuring that everyone reaches their potential over the life course and into the next generation—the vision that is core to the Sustainable Development Goals.

Risks to early childhood development remain high

Updated definitions of stunting and extreme poverty and improved source data were used to re-estimate the number of children under 5 years in low- and middle-income countries who are at risk of not reaching their developmental potential. Between 2004 and 2010, this number declined from 279 million (51 percent of children in 2004) to 249 million (43 percent of children in 2010), with the highest prevalence in sub-Saharan

Africa (70 percent in 2004 and 66 percent in 2010).^{1,11}

An illustrative analysis from 15 countries with available Multiple Indicator Cluster Surveys in 2010 or 2011 demonstrates the implications of additional risks to children’s development beyond poverty and stunting, including low maternal schooling (completed primary school) and child physical abuse by either parent or by caregivers (severe punishment of children aged 2 to 5

years, such as hitting a child as hard as possible, or with a belt or stick). Estimates of children at risk increase dramatically when low maternal schooling and this kind of physical abuse are added, from 62.7 percent (exposed

to risks of stunting or extreme poverty), to 75.4 percent, with large disparities among sub-national social and economic groups.

Global commitments to early childhood development are growing

Since 2000, the rapid increase in publications on the topic of early childhood development surpassed the general trend for health sciences publications. However, only a few of the publications reported on interventions.

The numbers of countries with national multi-sectoral early childhood development policies increased from seven in 2000 to 68 in 2014, of which 45 percent were low- and middle-income countries. There has also been

substantial investment in early childhood development during that time period. For example, since 2000 the Inter-American Development Bank has approved more than 150 projects for over US\$1.7 billion.¹² From 2000 to 2013, the World Bank invested \$3.3 billion in 273 projects, primarily through health, nutrition, and population programmes.¹³ Still, investment falls short of the need and the impact of available interventions.

Early childhood development from a life course perspective

Childhood development is a maturational process resulting in an ordered progression of perceptual, motor, cognitive, language, socio-emotional, and self-regulation skills. Thus, the acquisition of skills through the life-cycle builds on the foundational capacities established in early childhood.

Multiple factors influence the acquisition of competencies and skills, including health, nutrition, security and safety, responsive caregiving, and early learning (Figure 1). Each are necessary for nurturing care. Nurturing care reduces the detrimental effects of disadvantage on brain structure and function which, in turn, improves children's health, growth, and development.¹⁴

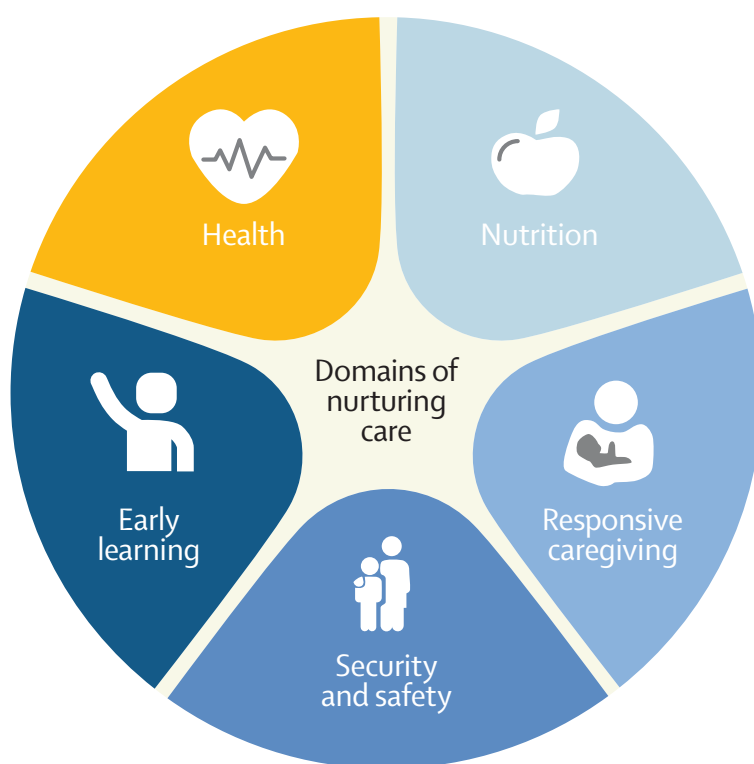


Figure 1: Domains of Nurturing Care Necessary for Children to Reach Their Developmental Potential¹⁵

Interventions, including nurturing care, benefit early childhood development

Interventions identified by reviews between 2011 and 2015, and country policies shown to have significant benefits for childhood development, are summarised and organised into packages in Figure 2. Many of the

health and nutrition interventions have additional benefits for improved child survival and growth, as well as reduced morbidities and disabilities.

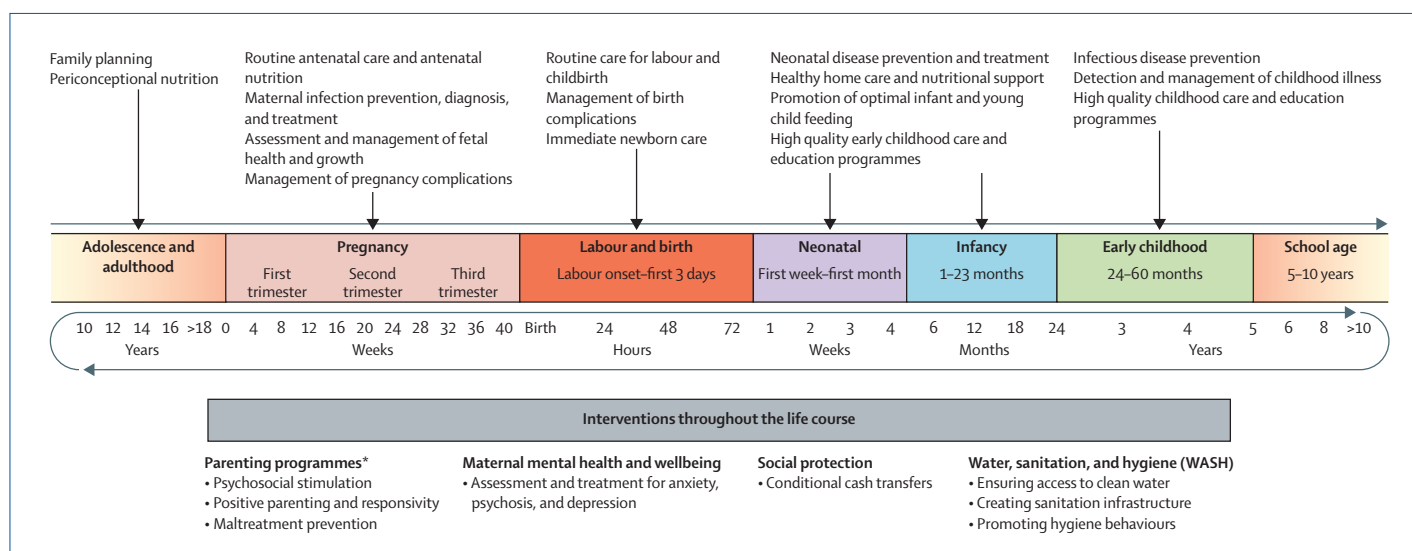


Figure 2: Evidence-based interventions that affect aspects of nurturing care. Source: Series Paper ECD 2.

Family support and strengthening package

Three elements of family strengthening increase the likelihood that families are able to provide nurturing care for their children: access to quality services (eg, antenatal care, immunisation, nutrition); skills building (eg, nurturing care and reduction of harsh discipline); and support (eg, social protection, safety networks, and family support policies).

Caring for the caregiver package

This two-generation package emphasises care and protection of parents' physical and mental health and wellbeing, while enhancing caregivers' capacity to provide nurturing care to their child.

Early learning and protection package

This set of interventions integrates the support of young children with parental support and the facilitation of teachers' and caregivers' ability to create a nurturing

environment in day care and early childhood centres. The emphasis is on quality and family support through parental empowerment, guidance on nutrition and care, and child protection.

Parent support programmes

Parent support programmes that promote nurturing care, particularly those employing several behaviour-change techniques, can substantially augment the positive effects on early childhood development outcomes of basic health and nutrition, education, and protection interventions. In contrast, maltreatment during childhood is associated with reduced volume in brain regions involved in learning and memory.¹⁶ Children who receive inadequate care, especially in the first 24 months of life and often from mothers who themselves were neglected or abused, are more sensitive to the effects of stress and display more behavioural problems than do children who receive nurturing care.¹⁷

Multi-sectoral interventions improve childhood development

The effectiveness of interventions could be improved by taking into consideration the major insights gained over the past decade about how human development is affected across generations by complex and multi-faceted experiences. Sectoral interventions combined with elements of nurturing care and protection, can boost the effect on child outcomes. This approach encourages interventions directed at the family as a unit rather than the child alone.

Learning from early childhood development programmes at scale

An analysis of country programmes illustrates the importance of political prioritisation, legislation, and policy, and the use of existing systems and financing to scale up. These programs focus on addressing poverty, inequality, and social exclusion, starting early. Scaled-up early childhood development programmes most often have a vision of comprehensive and integrated services for children and families; have been founded by statute or other formally communicated government strategy; have been funded by government; and have been led by a government department or agency working collaboratively with other departments and civil society organisations.

Framework for action

To promote health and wellbeing across the life course at scale requires interventions provided through several sectors—and a supportive environment of policies, cross-sectoral coordination, and financing (Figure 3).

At the heart of this intervention framework is the nurturing care of young children, provided by parents, families, and other caregivers. Particularly successful are parent support programmes to promote nurturing care, among which the most widely implemented in low- and middle-income country settings are the WHO/UNICEF *Care for Child Development*¹⁸ and *Reach Up and Learn*, a parenting programme tested in trials in Jamaica over the past 20 years and now expanding to other regions.¹⁹

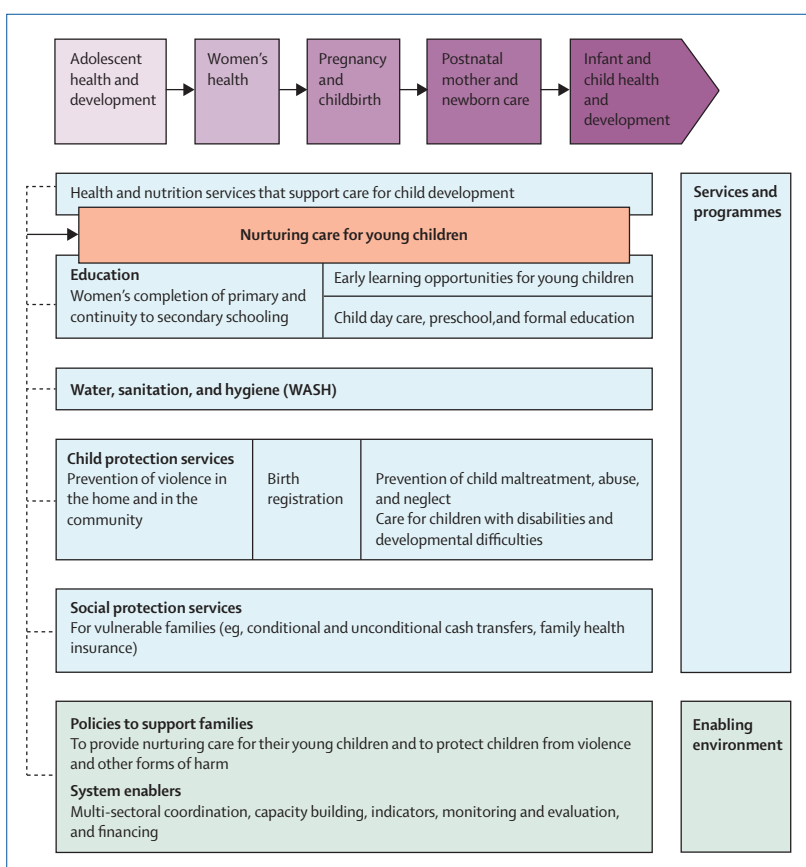


Figure 3: Framework to promote young children's development through a multi-sectoral approach. Source: Series Paper ECD 3.

Affordability of early childhood development interventions

To assess the affordability of including interventions to promote early childhood development in existing health and nutrition services, this paper estimates the additional costs of incorporating two interventions aimed at supporting nurturing care of children into the services identified in the Global Investment Framework for Women's and Children's Health.²⁰ The first intervention is based on *Care for Child Development* and

the second on support for maternal depression, because it bolsters nurturing care. The estimated average additional investment needed is half a dollar per capita in the year 2030, ranging from US\$0.2 in low-income countries to US\$0.7 in upper middle-income countries. This represents an additional 10 percent over published estimates for a comprehensive set of women's and children's health and nutrition services.

The cost of inaction

At an individual level, the loss of average adult income per year for the 43 percent of children at risk of not reaching their developmental potential is likely to be 26 percent, exerting a strong downward economic pull and trapping families in poverty. At a societal level, the cost of inaction for not improving stunting to a prevalence of 15 percent or less and not addressing developmental delays through preschools and home

visits is several times more than what some countries currently expend on health or education, respectively. The cost of inaction for not improving childhood development through preschool and home visits rises sharply in settings with fewer preschool services, as well as in settings with a higher prevalence of children at risk of poor development.

Pathway to scale

Action 1: Expand political will and funding through advocacy for the Sustainable Development Goals (SDGs)

Under the broader SDG umbrella, investing in early childhood development has become not only an aim in itself, but a requisite for achieving many other SDGs (eg, SDGs 1-5, 10, 16, and 17). For example, SDG Target 4.2 under the learning goal, calling for universal access to quality early childhood development, care, and pre-primary education, provides unprecedented opportunity to scale up early childhood development services.

Action 2: Create a policy environment that supports nurturing care of young children

Laws and policies can improve childhood development by increasing access to and quality of health and other services, as well as money and time for parents to provide nurturing care for their young children. Five transformative policies for which there is robust global data on levels, duration, country coverage, and

progress achieved in the past two decades include: 1) paid parental leave for new mothers and fathers; 2) breastfeeding breaks at work; 3) paid leave for parents to care for sick children; 4) income support through a minimum wage; and 5) tuition-free pre-primary education. Governments, with the technical and funding assistance of development partners, must also ramp up efforts to analyse their situation, identify gaps and priority areas for intervention, and develop sustainable and costed action plans to promote early childhood development at scale.

Action 3: Build capacity to promote early child development through multi-sectoral coordination

Many efforts to promote early childhood development are dependent on non-governmental services, which are frequently limited in scope and inequitable in coverage. Interventions are highly dependent on skilled human resources and, unless built on existing service systems

such as health, education, social and child protection, face severe supply-side constraints. This is illustrated by lessons learned from the scale-up between 2000 and 2009 of more than 120 cash transfer programmes in low- and middle-income countries.

We identified multiple examples in health and nutrition services into which interventions to promote nurturing care and improve childhood developmental outcomes have been feasibly and effectively incorporated. Opportunities also exist in other sectors, which is important for the continuity of support from early childhood into schooling. For example, in the education sector, childhood development can be supported through a variety of early learning opportunities, including the provision of child day care services, preschool, and parent education. Interventions can also be provided through child and social protection services, including cash transfer programmes. Thus, the integration of early childhood development interventions into existing service delivery platforms, starting with health, is an effective and efficient way to reach large numbers of families and children.

Conclusion

Strong biological, psychosocial, and economic arguments exist for intervening as early as possible, starting from and even before conception, to promote, protect, and support children's development. An emphasis on the first years of life is articulated within a life course perspective. High-quality care in families, child day care services, and preschools during the earliest years needs to be followed by high quality schooling and services into adolescence in order to capitalise on inter-dependence between investments made in the successive stages of the life cycle.

Multi-sectoral interventions, with health services as an entry point, are particularly well-placed to reach children early with services that support families to deliver nurturing care and promote, protect, and support early childhood development. Interventions to promote nurturing care can feasibly build on existing

Action 4: Ensure accountability for early child development services, increase research, and foster global and regional leadership and action

Ensuring the inclusion of a core set of early childhood development indicators, which go beyond access and process and hold stakeholders accountable for childhood development in the global metrics for the SDGs, is of paramount importance. Research that links detailed longitudinal data on policies and programmes with outcomes, allowing causal modelling, is essential.¹⁰



health and nutrition services at only a limited additional cost. Coordination with education is needed to promote learning, and with social and child protection, to reach the most vulnerable populations.

Evidence consolidated in this series points to effective interventions and delivery approaches at a scale that was not envisaged before. During the next fifteen years, world leaders have a unique opportunity to invest in the early years for long-term individual and societal gains and achievement of the SDGs. All sectors must play their part in supporting families to provide nurturing care for children. However, the time has come for the health sector to expand its vision of health beyond prevention and treatment of disease to include the promotion of nurturing care for young children as a critical factor in the realisation of the human potential of all people.

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